

REMARKS

Favorable reconsideration and withdrawal of the objections and rejections set forth in the above-mentioned Official Action in view of the foregoing amendments and the following remarks are respectfully requested.

Claims Status

Claims 1 through 4, 6 through 12, 14, 16, 18, 19, and 21 through 25 are now pending in the application. Claims 5, 13, 15, 17, and 20 have been canceled. Claims 1 through 4, 6 through 12, 14, 16, 18, and 19 have been amended to even more succinctly define the invention and/or to improve their form. Claims 21 through 25 have been presented to accord Applicants an additional scope of protection commensurate with the disclosure. It is respectfully submitted that no new matter has been added. Claims 1, 11, and 21 are the only independent claims pending in the application.

Claim Objection

Claim 18 is objected to because of a minor informality kindly noted by the Examiner. In response, Claim 18 has been amended *inter alia* as suggested by the Examiner to overcome the grounds of the objection. Accordingly, it is respectfully submitted that the objection has been overcome.

Art Rejections

Claims 1 through 3 are rejected under 35 U.S.C. § 103(a) as being unpatentable over newly-cited U.S. Patent No. 6,411,785 (Ogawahara et al.) in view of previously-cited Sakai, et al.).

Claims 4 through 6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ogawahara et al. in view of Sakai, et al., and further in view of previously-cited Kagawa, et al.

Claims 7 through 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ogawahara et al., in view of Sakai, et al., and further in view of previously-cited Hasegawa, et al.

Claims 11, 12, 19, and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hasegawa, et al. in view of Ogawahara et al.

Claims 13 through 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hasegawa, et al. and Ogawahara et al., as applied to Claim 11 above, and further in view of newly-cited Japanese Patent Document No. 11-194655 (Nanbu et al.).

Claims 16 through 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hasegawa, et al., in view of Ogawahara et al., and further in view of Kagawa et al.

The rationale underlying each of the foregoing art rejections is succinctly set forth in the Official Action.

Response to Art Rejections

The rejections of the pending claims are respectfully traversed.

Amended Claim 1 calls for a heating apparatus for heating a material, which is inserted in a nip to be nipped and conveyed therein using the heat of a rotary member. The heating apparatus includes a rotary member; an opposing member forming a nip with respect to the rotary member; a heating member for heating a portion different from the nip in a surface of the rotary member; and a temperature controller for controlling a temperature of said rotary member heated by the heating member.

Claim 1 is characterized in that the temperature controller raises a temperature of the heating member or increases power supplied to the heating member within one revolution period of the rotary member from an insertion timing of a leading edge of the material to be heated in the nip, *without detecting a surface temperature of the rotary member at a downstream side of the nip.*

In contrast, Ogawahara, et al. discloses controlling the temperature of an external heating roller 55 based on a temperature detected by temperature sensors 62 and 70 (See Fig.4). In Ogawahara, et al., a decrease in a temperature of surface of a fixing roller 51 at a nip part caused by an approaching sheet is detected by the temperature sensor 62 when the heating source 52 in the fixing roller 51 is being temperature controlled. Ogawahara, et al. does not disclose or suggest the meritorious claimed feature that a temperature is controlled, “*without detecting a surface temperature of said rotary member at a downstream side of the nip.*” *A fortiori* Ogawahara, et al. does not disclose or suggest that the temperature controller raises a temperature of a heating member or increases power supplied to the heating member within one revolution period of the rotary member from an insertion timing of a leading edge of the material to be heated in the nip, *without detecting a surface temperature of the rotary member at a downstream side of the nip.*

The Examiner recognizes this deficiency of Ogawahara, et al. and relies on Sakai, et al. for allegedly disclosing this feature. The portions of Sakai, et al. noted by the Examiner, i.e., column 11, lines 1 through 4 and column 12, lines 1 through 5 discuss the on-off-state of the heater. However, Sakai, et al. does not disclose or suggest the claimed control feature.

It is respectfully submitted that Ogawahara, et al. and Sakai, et al. whether taken individually or in combination does not render obvious the invention recited in amended Claim 1.

Accordingly, independent Claim 11 calls for an image forming apparatus, that includes an image forming part for forming an unfixed toner image on a recording material; and a fixing part including a first rotary member and a second rotary members that are in contact with each other to form a nip and a heating member for heating the first rotary member in a heating position different from the nip, and for fixing an image formed on a recording material the recording material in the nip using heating of the first rotary member; and a power control part, and a power control part.

Amended Claim 11 is characterized by a power control part, which controls power to be supplied to the heating member so as to increase an amount of heat supplied to first rotary member substantially at timing when a portion of the first rotary member contacted with a leading edge of the recording material in the nip reaches the heating position *without detecting a surface temperature of said rotary member at a downstream of the nip.*

The Examiner recognizes that Hasegawa, et al. does not disclose *inter alia* the claimed “power control portion” and relies on Ogawahara, et al. for allegedly disclosing the claimed features.

As above-noted, Ogawahara, et al. does not disclose or suggest the claimed temperature controller feature. Accordingly, Ogawahara, et al. does not disclose or suggest the claimed power control part, which in a manner similar to the temperature controller feature, controls power to be supplied to the heating member so as to increase an amount of heat supplied to said first rotary member substantially at timing when a portion of said first

rotary member contacted with a leading edge of the recording material in the nip reaches the heating position *without detecting a surface temperature of said rotary member at a downstream of the nip.*

It is respectfully submitted that Hasegawa, et al. and Ogawahara, et al. whether taken individually or in combination do not render obvious the invention recited in amended Claim 11.

Hasegawa, et al. in view of Ogawahara, et al.

It is also respectfully submitted that the combination rejections are not well founded. The Examiner has provided a *rationalization* for combining the teachings of the cited art based on the benefits of doing so, i.e., “stable fixability” in the case of Ogawahara, et al. and Sakai, et al. and “better control” in the case of Hasegawa, et al. and Ogawahara, et al. There is nothing in the cited art which supports the position that it should be or can be combined in the manner suggested by the Examiner. Even if the art could be so combined, the mere fact that the art can be combined is not sufficient if there is no suggestions in the art that such a combination is desirable.

In view of the foregoing, it is respectfully submitted that amended independent Claims 1 and 11 are allowable over the cited art whether taken individually or in combination.

Newly-presented Claim 21

The present invention in newly added Claim 21 is characterized by a fixing part including a first and a second rotary members that are in contact with each other to form a nip and a heating member for heating the first rotary member in a heating position different from the nip, and for fixing an unfixed image formed on a recording material to the

recording material in the nip using heat of the first rotary member, the heating member including a film and heating a surface of the first rotary member through the film, a temperature detector for detecting temperature of said film of said heating member at an upstream side of a heating portion of said film, and a power control part for controlling power to be supplied to the heating member so as to increase an amount of heat supplied to the first rotary member substantially at a timing when a portion of the first rotary member contacts a leading edge of the recording material in the nip reaches the heating position based on the temperature detected by the temperature detector.

Claim 21 is also characterized by *a temperature detector for detecting temperature of the film of the heating member at a upstream of the heating portion of the film*; and a power control part for controlling power to be supplied to the heating member so as to increase an amount of heat supplied to the first rotary member substantially at timing when a portion of the first rotary member contacted with a leading edge of the recording material in the nip reaches the heating position *based on the temperature detected by said temperature detector*.

It is respectfully submitted Sakai, et al., Hasegawa, et al., and Ogawahara, et al. do not disclose or suggest temperature control based on a temperature detected by a sensor to detect it at a upstream side of heating portion of a film. Specifically, Sakai, et al., Hasegawa, et al., and Ogawahara, et al. do not disclose or suggest the meritorious feature of the present invention characterize by the fixing part including a first and a second rotary members that are in contact with each other to form a nip and a heating member for heating the first rotary member in a heating position different from the nip, and for fixing an unfixed image formed on a recording material to the recording material in the nip using

heat of the first rotary member, the heating member having a film and heating a surface of the first rotary member through the film.

It is respectfully submitted that even if the teachings of Sakai, et al., Hasegawa, et al., and Ogawahara, et al. are taken together, the resulting combination does not disclose or suggest the invention recited in independent Claim 21.

Dependent Claims

Claims 2 through 4, 6 through 10, 12, 14, 16, 18, 19, and 22 through 25 depend either directly or indirectly from one of Claims 1, 11, and 21 and are allowable by virtue of their dependency and in their own right for further defining Applicants' invention.

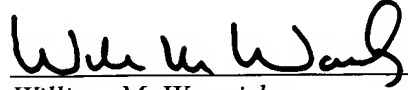
Individual consideration of the dependent claims is respectfully requested.

Closing Comments

It is respectfully submitted that the pending claims are allowable over the art of record and that the application is in condition for allowance. Favorable reconsideration and early passage to issue of the present application are earnestly solicited.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our New York office at the address shown below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "William M. Wannisky", is written over a horizontal line.

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